STATE OF MARYLAND

DHMH

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May 07, 2010

Public Health & Emergency Preparedness Bulletin: # 2010:17
Reporting for the week ending 05/01/10 (MMWR Week #17)

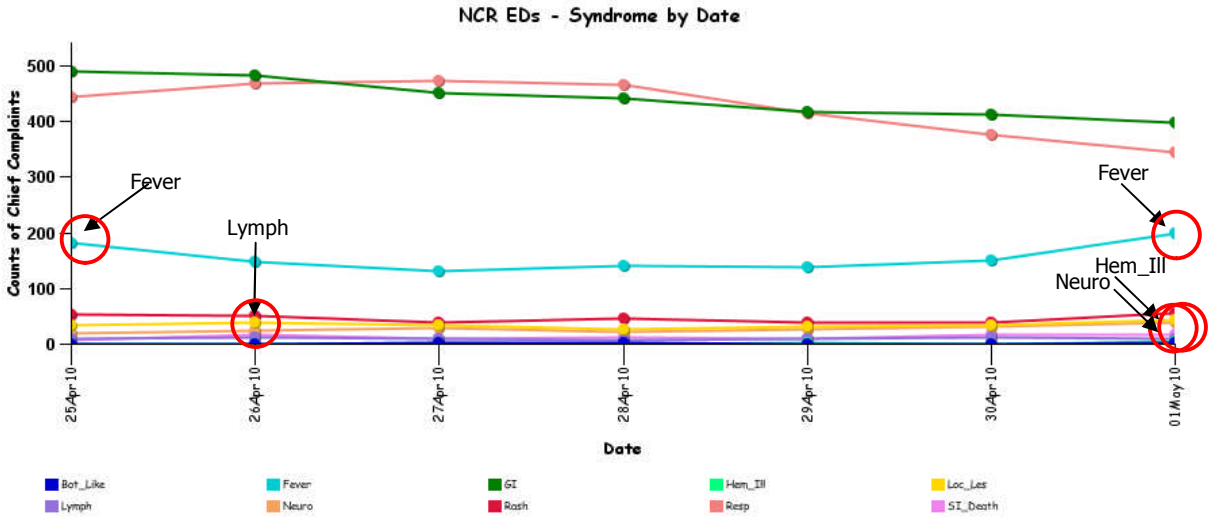
CURRENT HOMELAND SECURITY THREAT LEVELS

National: **Yellow (ELEVATED) *The threat level in the airline sector is Orange (HIGH)**
Maryland: **Yellow (ELEVATED)**

SYNDROMIC SURVEILLANCE REPORTS

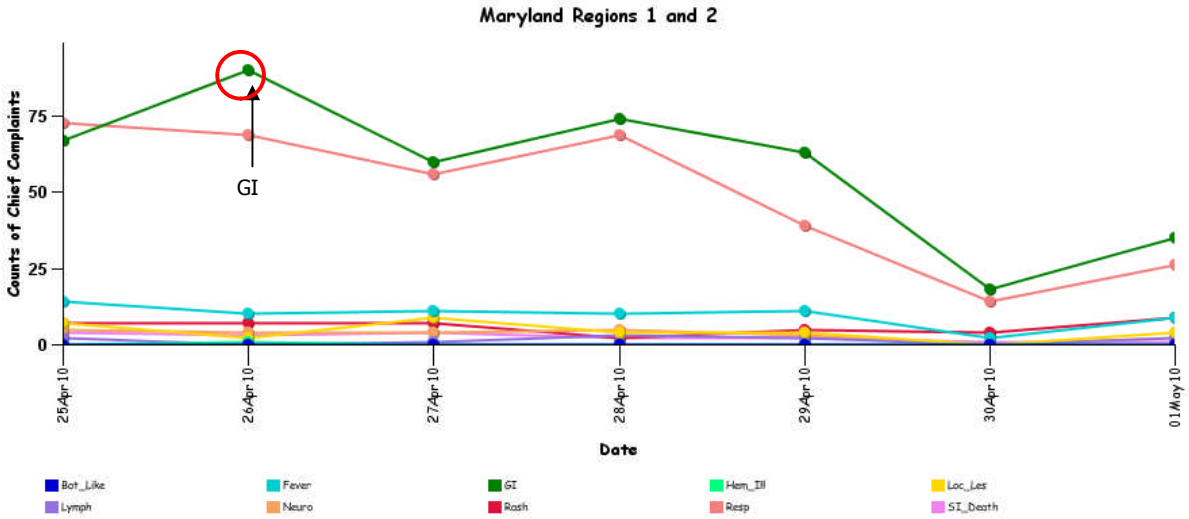
ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics):
Graphical representation is provided for all syndromes, excluding the "Other" category, all age groups, and red alerts are circled. Red alerts are generated when observed count for a syndrome exceeds the 99% confidence interval. Note: ESSENCE – ANCR Spring 2006 (v 1.3) now uses syndrome categories consistent with CDC definitions.

Overall, no suspicious patterns of illness were identified. Track backs to the health care facilities yielded no suspicious patterns of illness.

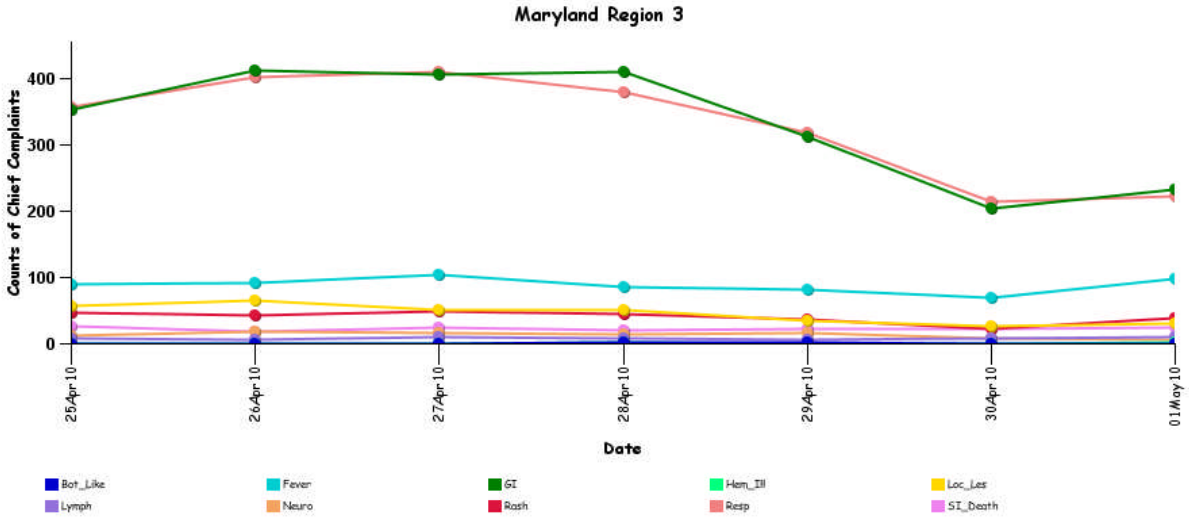


* Includes EDs in all jurisdictions in the NCR (MD, VA, and DC) reporting to ESSENCE

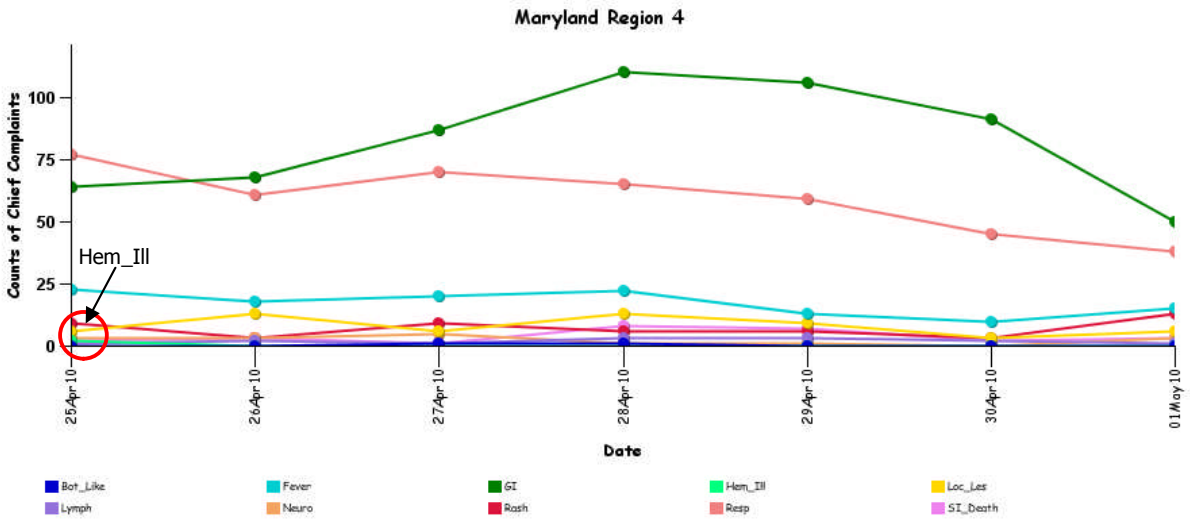
MARYLAND ESSENCE:



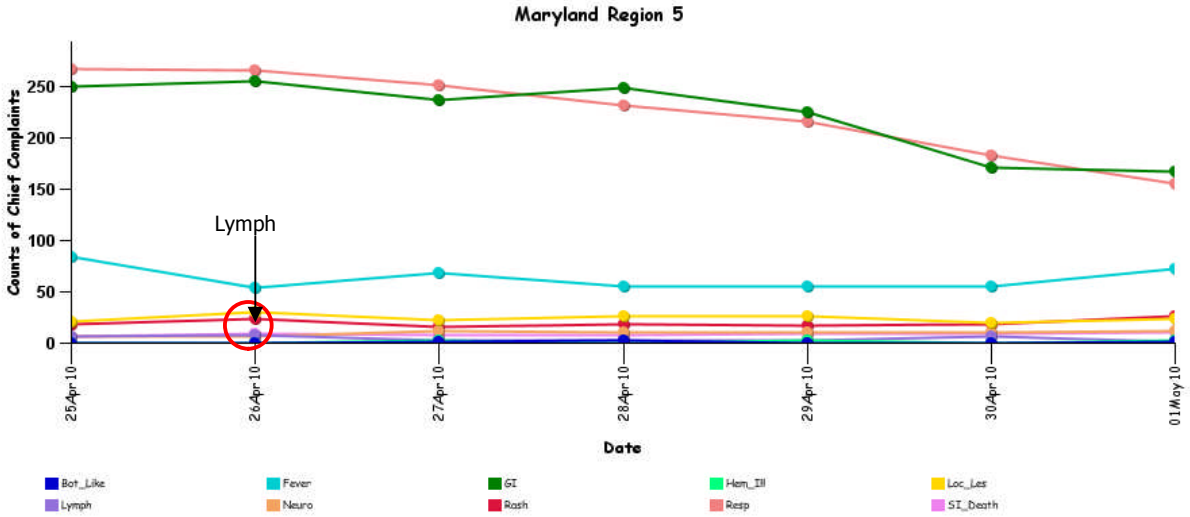
* Region 1 and 2 includes EDs in Allegany, Frederick, Garrett, and Washington counties reporting to ESSENCE



* Region 3 includes EDs in Anne Arundel, Baltimore city, Baltimore, Carroll, Harford, and Howard counties reporting to ESSENCE

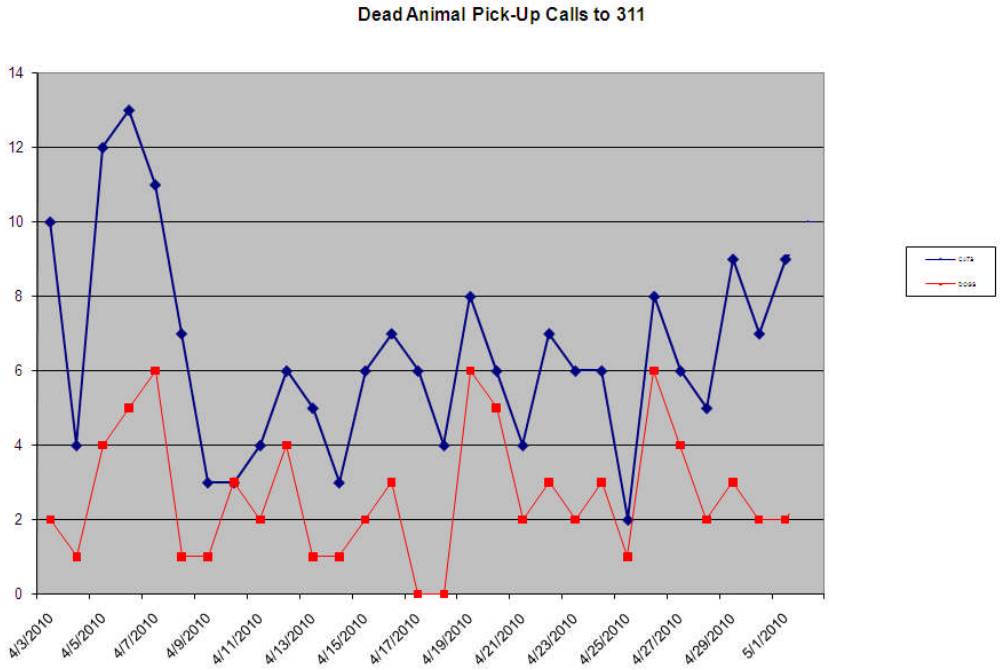


* Region 4 includes EDs in Cecil, Dorchester, Kent, Somerset, Talbot, Wicomico, and Worcester counties reporting to ESSENCE



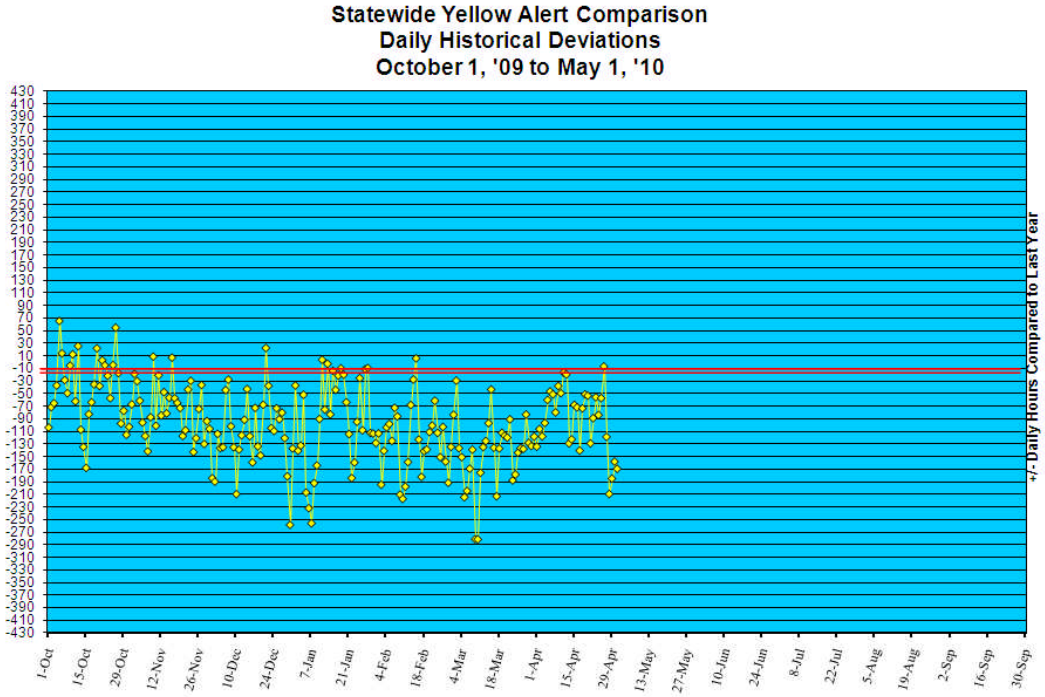
* Region 5 includes EDs in Calvert, Charles, Montgomery, Prince George's, and St. Mary's counties reporting to ESSENCE

BALTIMORE CITY SYNDROMIC SURVEILLANCE PROJECT: No suspicious patterns in the medic calls, ED Syndromic Surveillance and the animal carcass surveillance. Graphical representation is provided for animal carcass surveillance 311 data.



REVIEW OF EMERGENCY DEPARTMENT UTILIZATION

YELLOW ALERT TIMES (ED DIVERSION): The reporting period begins 10/01/09.



REVIEW OF MORTALITY REPORTS

Office of the Chief Medical Examiner: OCME reports no suspicious deaths related to an emerging public health threat for the week.

MARYLAND TOXIDROMIC SURVEILLANCE

Poison Control Surveillance Monthly Update: Investigations of the outliers and alerts observed by the Maryland Poison Center and National Capital Poison Center in March 2010 did not identify any cases of possible public health threats.

REVIEW OF MARYLAND DISEASE SURVEILLANCE FINDINGS

COMMUNICABLE DISEASE SURVEILLANCE CASE REPORTS (confirmed, probable and suspect):

Meningitis:	**Aseptic**	**Meningococcal**
New cases (April 25 - May 1, 2010):	16	0
Prior week (April 18 - April 25, 2010):	08	0
Week#17, 2009 (April 26- May 2, 2009):	07	0

2 outbreaks were reported to DHMH during MMWR Week 17 (April 25-May 1, 2010)

1 Gastroenteritis outbreak
1 outbreak of GASTROENTERITIS in a Hospital

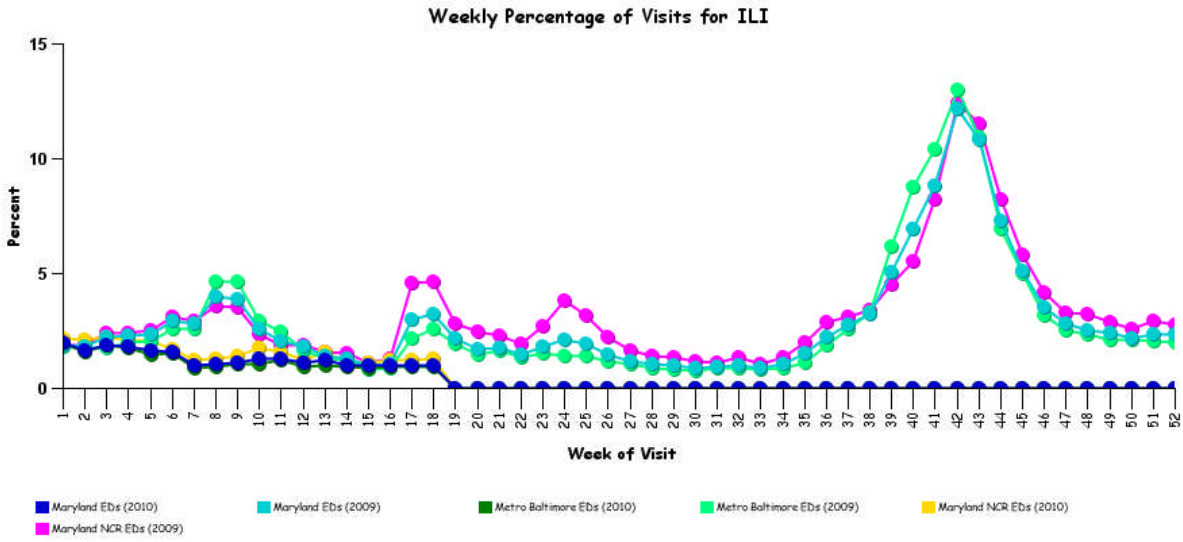
1 other outbreak
1 outbreak of STREPTOCOCCAL PHARYNGITIS in a School

MARYLAND INFLUENZA STATUS: Influenza activity in Maryland for Week 17 is NO Activity indicating that there is very low level of activity.

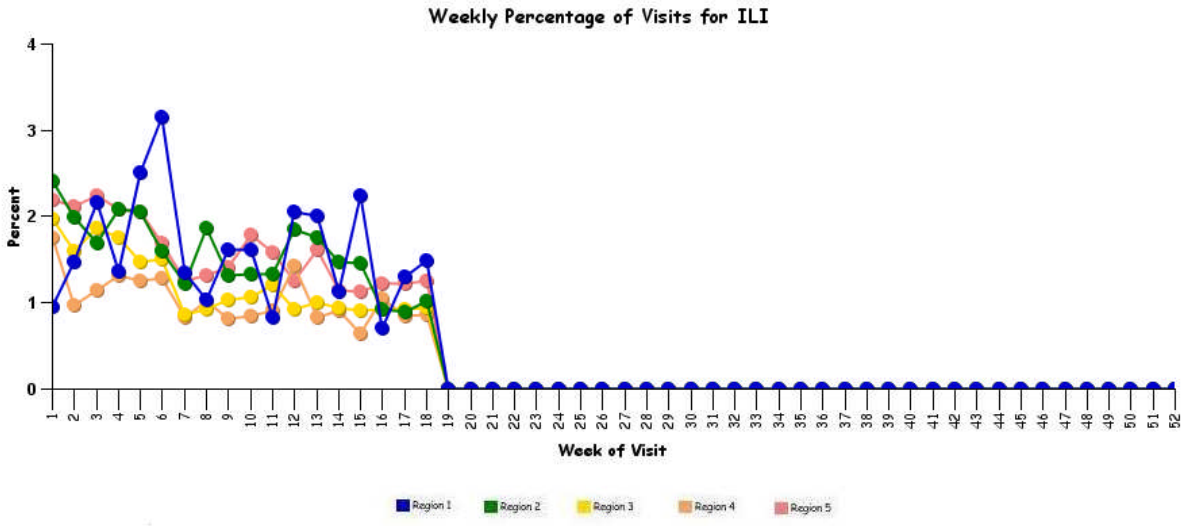
SYNDROMIC SURVEILLANCE FOR INFLUENZA-LIKE ILLNESS

Graphs show the percentage of total weekly Emergency Department patient chief complaints that have one or more ICD9 codes representing provider diagnoses of influenza-like illness. These graphs do not represent confirmed influenza.

Graphs show proportion of total weekly cases seen in a particular syndrome/subsyndrome over the total number of cases seen. Weeks run Sunday through Saturday and the last week shown may be artificially high or low depending on how much data is available for the
week.



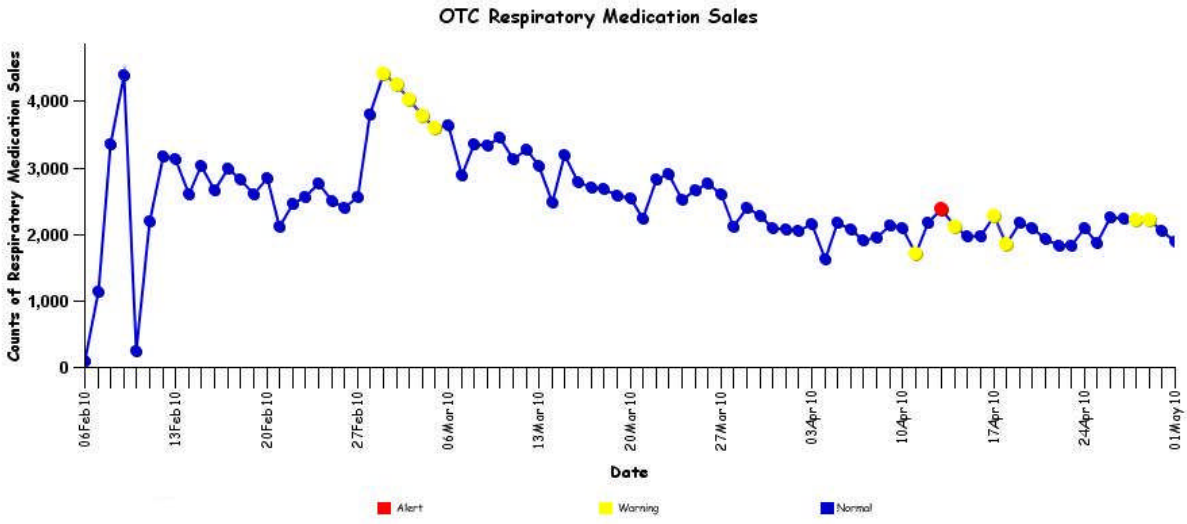
* Includes 2009 and 2010 Maryland ED visits for ILI in Metro Baltimore (Region 3), Maryland NCR (Region 5), and Maryland Total



*Includes 2010 Maryland ED visits for ILI in Region 1, 2, 3, 4, and 5

OVER-THE-COUNTER (OTC) SALES FOR RESPIRATORY MEDICATIONS:

Graph shows the daily number of over-the-counter respiratory medication sales in Maryland at a large pharmacy chain.



PANDEMIC INFLUENZA UPDATE:

WHO Pandemic Influenza Phase: Phase 6: Characterized by community level outbreaks in at least one other country in a different WHO region in addition to the criteria defined in Phase 5. Designation of this phase will indicate that a global pandemic is under way. Definition of Phase 5 is characterized by human-to-human spread of the virus into at least two countries in one WHO region. While most countries will not be affected at this stage, the declaration of Phase 5 is a strong signal that a pandemic is imminent and that the time to finalize the organization, communication, and implementation of the planned mitigation measures is short.

US Pandemic Influenza Stage: Stage 0: New domestic animal outbreak in at-risk country

**More information regarding WHO Pandemic Influenza Phase and US Pandemic Influenza Stage can be found at: http://preparedness.dhmh.maryland.gov/Docs/PandemicInfluenza/PandemicInfluenzaResponseAnnex(Version7.2).pdf

AVIAN INFLUENZA-RELATED REPORTS:

WHO update: As of April 21, 2010, the WHO-confirmed global total of human cases of H5N1 avian influenza virus infection stands at 495, of which 292 have been fatal. Thus, the case fatality rate for human H5N1 is about 59%.

H1N1 INFLUENZA (Swine Flu):

INFLUENZA PANDEMIC (H1N1), WHO Update: 01 May 2010, Worldwide more than 214 countries and overseas territories or communities have reported laboratory confirmed cases of pandemic influenza H1N1 2009, including over 17919 deaths. The WHO is actively monitoring the progress of the pandemic through frequent consultations with the WHO Regional Offices and Member States and through monitoring of multiple sources of information.

Situation update: The current situation is largely unchanged since the last update. The most active areas of transmission of pandemic influenza H1N1 virus continue to be parts of West and Central Africa with some focal areas of activity in South and Southeast Asia. Pandemic influenza activity H1N1 remains low in much of the temperate areas of both the northern and southern hemispheres. Seasonal influenza type B virus is the predominant influenza virus, though also at low levels of circulation, across East Asia, Northern and Eastern Europe. Influenza type B viruses have also been detected in Central Africa and this week in West Africa. Seasonal influenza H3N2 viruses have continued to be detected in South and Southeast Asia, as well as sporadically in some countries of West and Central Africa, and Eastern Europe.

In Sub-Saharan Africa, data from a limited number of countries suggests that active transmission of pandemic influenza H1N1 virus is declining across West and West-central Africa. Ghana is reporting moderate amounts of pandemic virus (16 percent of all clinical specimens tested were positive for pandemic influenza) but smaller numbers of cases continue to be detected in Senegal, Niger and Cameroon. In East Africa, influenza activity has returned to low levels. Only Rwanda has detected small numbers of pandemic virus in the past week. In addition, a few seasonal influenza H3N2 viruses are seen in Ghana. Influenza type B has been increasingly detected in the area, notably in Ghana and Cameroon.

In East Asia, pandemic influenza H1N1 virus circulation is now sporadic. In China, Mongolia, and Republic of Korea most influenza like illness cases continued to be primarily due to seasonal influenza type B viruses. In China and Mongolia influenza detections save continued to decline compared to previous recent weeks. The Republic of Korea reported increasing levels of respiratory disease activity associated with increasing detections of seasonal influenza type B in respiratory specimens over 5 consecutive weeks. Of note, small numbers of pandemic influenza H1N1, seasonal H3N2 and H1N1 viruses continued to be sporadically detected in some countries of the region.

In Southeast Asia, overall levels of influenza activity were low. Although the predominant influenza virus circulating was still pandemic influenza H1N1, there was co-circulation of seasonal influenza type B and, to a lesser extent, H3N2 viruses in several countries including Singapore, Cambodia, Indonesia and Thailand. Malaysia has reported increasing levels of respiratory diseases activity associated with pandemic influenza H1N1 laboratory confirmed cases. Media sources have also reported school closures in the country. In Singapore, influenza-like-illness levels are still below the seasonal epidemic threshold but have increased compared to previous week.

In South Asia, Bangladesh reported an increase in respiratory diseases activity associated with increasing numbers of pandemic influenza H1N1 laboratory confirmed cases since beginning of April 2010. India reported pandemic influenza activity in the states of Maharashtra and recently Karnataka. Levels of respiratory diseases activity in both of these countries appear much less intense than in the initial wave of transmission which occurred late 2009. Although pandemic influenza is the predominant virus circulating in the region, seasonal influenza type B viruses continued to be detected in Iran and Bangladesh.

In the tropical zone of the Americas, limited data suggested that pandemic influenza H1N1 activity remains low but with a few localized areas of transmission. Jamaica, Panama and Guatemala, reported increasing trends in respiratory disease activity. In Cuba, all provinces reported an increase in numbers of acute respiratory diseases cases in the last two weeks, mainly from the city of

Havana. In Peru, the number of pneumonia cases in children under 5 years of age in Lima has been increasing since 6 consecutive weeks and remained above the epidemic threshold. However, the extent to which these pneumonia cases have been due to pandemic influenza H1N1 virus is not known. Notably, respiratory syncitial virus (RSV) has been reported to be circulating in the area.

In the temperate zone of the Northern Hemisphere, overall pandemic influenza H1N1 activity remained low. In United States, the proportion of outpatient visits for influenza-like illness was below the national baseline. No influenza B is reported by countries of North America. In Europe, pandemic influenza activity is at very low intensity in all countries. The overall proportion of sentinel respiratory samples testing positive for influenza remained stable at about 4.5 percent. For the current week, the total number of sentinel influenza B detections continued to exceed that of influenza A, mainly due to viral detections from Eastern Europe: Central, Siberian, Far Eastern regions of the Russian Federation and Kazakhstan.

In the temperate countries of the Southern Hemisphere, influenza-like illness activity remained low and at the levels experienced at the same time in previous years. Australia has continued to report sporadic detections of pandemic influenza H1N1, seasonal influenza B and H3N2 viruses in low numbers in recent weeks.

Resources:
http://www.cdc.gov/h1n1flu/

http://www.dhmh.maryland.gov/swineflu/

NATIONAL DISEASE REPORTS

TULAREMIA, WILDLIFE (COLORADO): 28 April 2010, Telluride Parks and Rec Public Works Project Manager Karen Guglielmone reported Monday [26 Apr 2010] that 2 of the 4 beavers found dead in Telluride's Beaver Pond last week [week of 19 Apr 2010] have tested positive for tularemia. Town officials have alerted the Telluride Veterinary Clinic and the Telluride Medical Center to the outbreak of the disease, more commonly known as "rabbit fever" or "deer fly fever," which can be transmitted to animals and humans, most frequently by ticks and deer flies. Town residents reported the beaver deaths to authorities last week [week of 19 Apr 2010], following earlier reports that, despite the warm temperatures, no beavers had been sighted in the pond. Guglielmone estimated as many as 8 beavers could have been living in the Beaver Pond lodge, where it's possible more dead beavers will be found. "You never really know," she said, of the pond's resident beaver population, adding that beaver "kits" may remain with their parents for up to 2 years, before moving on. "It's like losing a neighbor," she said, of the dead beavers. Humans and animals can catch tularemia, but it is "easily treated with antibiotics" like tetracycline, Guglielmone said. She emphasized, however, that "if you see a dead rodent, don't pick it up -- or turn it over. If there is a cut on your arm, you risk getting infected." The disease, most often found in rabbit and hare populations, is endemic in North America, parts of Europe, and Asia; believed to have been introduced into the US in the late 19th or early 20th century, possibly by dogs, it was first isolated in Tulare, California. Tularemia is generally transmitted via rodents and insects -- biting flies, which can remain infective for up to 2 weeks, and ticks, which can remain infective for up to 2 years, although waterborne infection accounts for 5-10 percent of all cases in the US. Tularemia can also be spread by direct contact with contaminated animals or material, by ingestion of poorly cooked flesh of infected animals or contaminated water, or by inhalation. The incubation period for tularemia is 1 to 14 days, with most infections in humans manifesting in 3 to 5 days. According to the Centers for Disease Control, symptoms of tularemia in humans can include sudden fever, chills, headaches, diarrhea, muscle aches, joint pain, a dry cough, and progressive weakness; human victims can also develop pneumonia, chest pain, bloody sputum, and breathing difficulties. Depending on the vector of exposure, more symptoms can include ulcers on the skin or mouth, swollen and painful lymph glands, swollen and painful eyes, and a sore throat. Humans can get tularemia by being bitten by an infected tick, deer fly, or other insect, handling infected animal carcasses, eating or drinking contaminated food and water, and breathing in the bacteria. (Tularemia is listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

E. COLI (MICHIGAN, OHIO): 28 April 2010, An _E. coli_ outbreak has sickened at least a dozen people in Ohio and Michigan, including several students at Ohio State University and the University of Michigan. Health officials in both communities are running tests on samples from 20 others and say they haven't identified a source of the illness, which is often spread by contaminated ground beef or produce, particularly leafy greens. The cases are considered to be connected because lab tests revealed they're all of a less-commonly recognized type of _E. coli_ and several have matching genetic fingerprints. Investigators are surveying ill individuals to see what they have in common, including what they've eaten. Several of the sickened Ann Arbor residents ate at some of the same places and those were being considered possible sources, said Susan R Cerniglia, spokeswoman for Washtenaw County Public Health. Some food samples also were sent to the state lab in Michigan, she said. In light of the newly-connected Columbus cases, "now it's looking more like something broader, like a food-distribution issue," Cerniglia said. She said there is no indication at this point that anyone was sickened while traveling to another city. Columbus Public Health has identified 5 cases of _E. coli_ infection, some of them in Ohio State University students, and is looking into 6 others that might be connected, said Dr Mysheika LeMaile-Williams, the city's medical director. All are young adults who were sickened starting in mid-April 2010, she said. In Michigan, health officials have confirmed 7 cases in the Ann Arbor area and are looking at 14 others. Everyone in that investigation became ill between 9-15 Apr 2010, Cerniglia said. Some people in both areas were hospitalized, but none has developed hemolytic uremic syndrome [HUS], a potential complication that destroys red blood cells and can cause kidney failure and death, health officials said. The organism implicated in this outbreak is not _E. coli_ 0157:H7, which is most commonly linked to food-borne illness, LeMaile-Williams said. Instead, it's from a category broadly referred to as _E. coli_ non-0157. All types sicken

people in the same way, she said. The primary symptoms are bloody diarrhea and abdominal cramps. So far, the state lab has determined that 2 of the cases have genetic fingerprints that match the outbreak in Michigan, LeMaile-Williams said. (Food Safety Threats are listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

INTERNATIONAL DISEASE REPORTS

HEMORRHAGIC FEVER WITH RENAL SYNDROME (RUSSIA): 28 April 2010, A case of hemorrhagic fever with renal syndrome (HFRS) has been recorded recently in the Kursk Oblast. The 1st case of HFRS in the oblast was registered in 1997, and the 5 year cumulative incidence in Kursk was 39. The press service of Rospotrebnadzor [the Russian Federal Agency for Protection of Customer Rights and Human Welfare] has stated that stable reservoirs of HFRS are present in several regions of the oblast. This has been confirmed by serological surveys of rodent populations and the regular occurrence of human cases in these territories. (Viral Hemorrhagic Fever is listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

CRIMEAN-CONGO HEMORRHAGIC FEVER (KAZAKHSTAN): 28 April 2010, As of Tue 20 April 2010 there have been 7 confirmed cases of Crimean-Congo hemorrhagic fever (CCHF) in the South Kazakhstan Oblast [region]. The regional public health authority announced that more than 1500 people had sought medical care after receiving tick bites during the period 30 Mar to 20 Apr 2010. Of the 7 CCHF cases 2 died, whereas the remaining 5 cases experienced mild to moderate illness. About 127 of the contacts of these 7 are now under medical surveillance. Some settlements have recorded higher numbers of tick bites probably because of denser tick populations or inadequate tick control measures. More than 266 000 individuals who may be at risk are being contacted daily by healthcare workers, in order to encourage tick avoidance behavior and to check for suspicious symptoms and signs. Farm livestock are being treated with acaricides. (Viral Hemorrhagic Fever is listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

PLAGUE, BUBONIC (PERU): 28 April 2010 The outbreak of bubonic plague in the Chicama district of La Libertad, Peru has been increasing rapidly, specifically in the Libertad settlement, where 3 new cases of infection have been confirmed. This was revealed by the chief epidemiologist of the Belen Hospital, Pedro Diaz Camacho, who came to that area to assess the critical condition of those affected, aged 8, 9, and 14. "The presence of rats has increased in the settlement, and we ask the intervention of local and regional authorities," emphasizes the epidemiologist. Diaz Camacho also said that the 9-year-old patient is in serious condition and the prognosis is guarded. (Plague is listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

OTHER RESOURCES AND ARTICLES OF INTEREST

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: http://preparedness.dhmh.maryland.gov/

Maryland's Resident Influenza Tracking System: www.tinyurl.com/flu-enroll

Interim Results: State-Specific Seasonal Influenza Vaccination Coverage --- United States, August 2009--January 2010. *MMWR*, April 30, 2010 / 59(16);477-484. In the fall of 2009, distribution of two separate influenza vaccines began with distinct, although overlapping, recommendations from the Advisory Committee on Immunization Practices (ACIP). Also, 2009–10 was the first influenza season during which ACIP-recommended vaccination of all children aged 5–18 years was implemented. To provide preliminary state-specific estimates of seasonal influenza vaccination coverage, CDC analyzed Behavioral Risk Factor Surveillance System (BRFSS) and National 2009 H1N1 Flu Survey (NHFS) data collected during October 2009–February 2010. This report summarizes interim results of that analysis.http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5916a1.htm

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NOTE: This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail me. If you have information that is pertinent to this notification process, please send it to me to be included in the routine report.

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